AMENDMENTS TO THE CLAIMS

1.   (CURRENTLY AMENDED) An apparatus comprising:

a first processing circuit configured to generate a plurality of reconstructed samples in response to a plurality of macroblocks of an input signal; and

5   a second processing circuit configured to (A) generate a plurality of sum values based on said reconstructed samples, said sum values being used in ~~defining~~ a plurality of formulas organized as a plurality of groups ~~prediction types based on a number of said sum values that are available~~ and (B) individually determine a

10   plurality of intra prediction DC predictors for each of a plurality of chroma sub-blocks respectively of a current macroblock, wherein (i) all of said intra prediction DC predictors are generated using said formulas in a first of said groups ~~prediction types~~ when all of said sum values are available, and (ii) both (a) ~~a first subset~~

15   one of said intra prediction DC predictors is ~~are~~ generated using a respective one of said formulas in a second of said groups ~~said first prediction type~~ and (b) a remainder ~~second subset~~ of said intra prediction DC predictors are generated using respective ones of said formulas in said first group ~~a second of said prediction~~

20   ~~types~~ when only a single one of said sum values is unavailable.

2.   (ORIGINAL) The apparatus according to claim 1, wherein said second processing circuit is implemented in a decoding loop of an encoder.

3.   (ORIGINAL) The apparatus according to claim 1, wherein said first and said second processing circuits comprise a decoder.

4.   (ORIGINAL) The apparatus according to claim 1, wherein said apparatus comprises an H.264 compliant decoder.

5.   (PREVIOUSLY PRESENTED) The apparatus according to claim 1, wherein said second processing circuit comprises:

a third processing circuit configured to generate an intra predicted chroma sub-block in response to one of said intra prediction DC predictors.

6.   (ORIGINAL) The apparatus according to claim 5, wherein said second processing circuit further comprises:

a control circuit configured to generate said intra prediction DC predictor for each of said chroma sub-blocks in response to said reconstructed samples.

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7.   (ORIGINAL) The apparatus according to claim 6, wherein said control circuit is further configured to determine a position of a top edge and a left edge of a chroma block of said current macroblock.

8.   (PREVIOUSLY PRESENTED) The apparatus according to claim 7, wherein said reconstructed samples comprise a plurality of reconstructed samples in a row adjacent to said top edge of said chroma block.

9.   (PREVIOUSLY PRESENTED) The apparatus according to claim 7, wherein said reconstructed samples further comprise a plurality of reconstructed samples in a column adjacent to said left edge of said chroma block.

10.   (CANCELED).

11.   (CANCELED).

12.   (CURRENTLY AMENDED) An apparatus comprising:
    means for generating a plurality of reconstructed samples in response to a plurality of macroblocks of an input signal; and
    means for (A) generate a plurality of sum values based on said reconstructed samples, said sum values being used in defining

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a plurality of ~~formulas organized as a plurality of groups~~ ~~prediction types based on a number of said sum values that are~~ ~~available~~ and (B) individually determining a plurality of intra prediction chroma mode 0 predictors for each of a plurality of

10 chroma sub-blocks respectively of a current macroblock, wherein (i) all of said intra prediction chroma mode 0 predictors are generated using <u>said formulas in</u> a first of said <u>groups</u> ~~prediction types~~ when all of said sum values are available~~,~~ and (ii) both (a) ~~a first~~ ~~subset of~~ <u>one</u> said intra prediction chroma mode 0 predictors <u>is</u> ~~are~~

15 generated using <u>a respective one of said formulas in a second of</u> <u>said groups</u> ~~said first prediction type~~ and (b) a <u>remainder</u> ~~second~~ ~~subset~~ of said intra prediction chroma mode 0 predictors are generated using <u>respective ones of said formulas in said first</u> <u>group</u> ~~a second of said prediction types~~ when <u>only</u> a single one of

20 said sum values in unavailable.

13. (CURRENTLY AMENDED) A method for intra prediction of a chroma block comprising the steps of:

(A) generating a plurality of reconstructed samples in response to a plurality of macroblocks of an input signal;

5 (B) generating a plurality of sum values based on said reconstructed samples, said sum values <u>being used in</u> ~~defining~~ a plurality of <u>formulas organized as a plurality of groups</u> ~~prediction~~ ~~types based on a number of said sum values that are available~~;

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(C)   determining a plurality of intra prediction chroma
mode 0 predictors for each of a plurality of chroma sub-blocks
respectively of a current macroblock individually, wherein (i) all
of said chroma mode 0 predictors are generated using <u>said formulas
in</u> a first of said <u>groups</u> ~~prediction types~~ when all of said sum
values are available~~,~~ and (ii) both (a) ~~a first subset~~ <u>one</u> of said
intra prediction chroma mode 0 predictors <u>is</u> ~~are~~ generated using <u>a
respective one of said formulas in a second of said groups</u> ~~said
first prediction type~~ and (b) a <u>remainder</u> ~~second subset~~ of said
intra prediction chroma mode 0 predictors are generated using
<u>respective ones of said formulas in said first group</u> ~~a second of
said prediction types~~ when <u>only</u> a single one of said sum values in
unavailable; and

(D)   generating a compressed and encoded video bit stream
using said intra prediction chroma mode 0 predictors to reduce
spatial redundancy.

14.   (CANCELED).

15.   (CURRENTLY AMENDED) The method according to claim
13, wherein each of said <u>formulas</u> ~~prediction types~~ used to generate
each of said intra prediction chroma mode 0 predictors is selected
independently in response to availability of said reconstructed
samples adjacent to said chroma block.

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16. (ORIGINAL) The method according to claim 13, further comprising:

generating said reconstructed samples by inverse quantizing and inverse transforming a compressed bitstream.

17. (CURRENTLY AMENDED) The method according to claim 23, further comprising:

generating all of said intra prediction chroma mode 0 predictors using <u>said formulas in</u> a fourth of said <u>groups</u> ~~prediction types~~ when none of said sum values are available~~, wherein said prediction types comprise at most four of said prediction types~~.

18. (CURRENTLY AMENDED) The method according to claim 17, wherein <u>all of</u> said <u>formulas in said fourth group</u> ~~third prediction type~~ comprises a median chroma value.

19. (CANCELED).

20. (PREVIOUSLY PRESENTED) The method according to claim 13, wherein each of said intra prediction chroma mode 0 predictors comprises a weighted average of one or more of said sum values.

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21. (CURRENTLY AMENDED) The apparatus according to claim 1, wherein said second processing circuit is further configured to generate all of (i) ~~a third subset~~ <u>one</u> of said intra prediction DC

5 predictors using <u>a respective one of said formulas in said first group</u> ~~said first prediction type~~, (ii) ~~a fourth subset~~ <u>two</u> of said intra prediction DC predictors using <u>respective ones of said formulas in said second group</u> ~~said second prediction type~~ and (iii) a <u>remainder</u> ~~fifth subset~~ of said intra prediction DC predictors using <u>said formulas in</u> a third of said <u>groups</u> ~~prediction types~~ when

10 <u>only</u> two of said sum values are unavailable.

22. (CURRENTLY AMENDED) The apparatus according to claim 1, wherein said second processing circuit is further configured to generate a signal carrying mode information that identifies said <u>formulas</u> ~~prediction types~~ used to generate said intra prediction DC

5 predictors, said apparatus further comprising an encoder configured to generate a compressed and encoded video bit stream incorporating said mode information.

23. (CURRENTLY AMENDED) The method according to claim 13, further comprising:

generating all of (i) ~~a third subset~~ <u>one</u> of said intra prediction chroma mode 0 predictors using <u>a respective one of said</u>

5 <u>formulas in said first group</u> ~~said first prediction type~~, (ii) a

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~~fourth subset~~ <u>two</u> of said intra prediction chroma mode 0 predictors using <u>respective ones of said formulas in said second group</u> ~~said second prediction type~~ and (iii) a <u>remainder</u> ~~fifth subset~~ of said intra prediction chroma mode 0 predictors using <u>said formulas in</u> a third of said <u>groups</u> ~~prediction types~~ when <u>only</u> two of said sum values are unavailable.

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24. (CURRENTLY AMENDED) The method according to claim 13, further comprising the step of:

generating a signal carrying mode information that identifies said <u>formulas</u> ~~prediction types~~ used to generate said intra prediction chroma mode 0 predictors, wherein said compressed and encoded bit stream incorporates said mode information.

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